

Specification

- #1. The specification was retyped. The permanent copy was mailed to US PTO.
- #2. All the references on page 1 were cited for convenience only. They can be omitted upon Examiner consideration
- #3. A copy of the Canadian Patent Application Vo. 2230662, and a description of the Lumitouch fiber optic response pad which were cited in the application, were mailed to US PTO. Since the name of Lightwave Medical Industries Ltd has been changed to Photon Control, the correspondent change was made in page2.

Drawings

- #4. Figures 1A and 1B were designated by a legend. The drawings on figures 1A and 1B were shown in 3D for better presentation.

Claims Objections

- #5. The claims were retyped, dots (•) and dash lines (-) were removed.

Claims Rejections

- #7, page 4.

With the reference to cited US Pat. No. 3,886,544, none of the optical switches are based on coaxial arrangement. Instead, schematics and claims describe ellipsoidal switches which are not coaxial by definition.

#7, page 5.

The present invention claims (the last paragraph of Claim 1) a body of the keypad which " ..represents a box with a plurality holes in the front, left, and right sides for mounting of said fiber optic push-button switches in different locations on the keypad".

The main idea of this claim is to have a possibility for changing the position of fiber optic switches in different locations on the keypad. Both Narodny and Smeets teach the fixed design of the keypad. The feature of having a changeable position of buttons was not described neither by Narodny nor Smeets.

#7, page 5.

Claim 2 explains the details of Claim 1; the latter is related to the coaxial arrangement of the fiber, which is not described by Narodny. Therefore, this claim is original.

#7, page 5.

The same is about Claim 5 and Claim 6, which are related to Claim 1, and, therefore, are original, although ergonomic and both left-and-right handing keypads could be claimed elsewhere. This feature with reference to Claim 1 is not obvious and it was not previously described.

#7, page 6.

As to rejection of Claim 7, Narodny does not teach equidistant arrangement of the switches (as it seen from Fig.2). The plurality of switches presented in Fig.2 are not equidistantly located on the keyboard.

#7, page 6.

As to rejection of Claim 8, this claim further described Claim 7, which is original as was shown above.

#7, page 6.

As to rejection of Claim 9, Fig.3 by Smeets describes the keyboard as imaged on the screen (column 4, lines 33-34) but not circular arrangement of the switches. For this reason, this statement is not relevant to Claim 9 of the present invention.

#7, page 6.

As per rejection of Claim 13, Narodny does not teach two separate keypads, one for left and one for right hand, he teaches one keyboard on which both hand could be applied. For this reason, there is no need for a Y-box in Narodny's patent which would connect the housing (30) to the electronic unit.

#7, page 6.

As per rejection of Claims 16-19, these Claims provide further details on Claim 1 and Claim 6, which were not describe by any prior art and, therefore, they are original in a context how all Claims 1-20 are presented. Also, Claim 20 is not an independent claim, but it further provides details for Claim 1.

#8, and 9, page 7,8

As to Claim 3, it teaches the design which serves for convenient repositioning of the switches on the keypad by using snapping means. Garcia teaches using snapping means for illumination of the switch, but not for repositioning of the switches along the keypad.

#10, page 8,9

Martovitz teaches the joystick for a computer keyboard having a plurality of keys arranged in a rectangular array (column 2, Claim1, line 65 and figures 1 and 2). The present invention teaches the joystick arrangement for various locations of the switches on keypad including circular one, which is shown in Fig. 8.

Also, Martovitz teaches central hollowed housing adapted to be loosely fitted over one of said keys to cap the same (column 2, Claim1, line 66, 67 and figures 3, 4 and 5).

This loose arrangement leads to risk of depression of the central key (key 11c in Fig.5).

The present invention teaches through-hole arrangement of the joint (Fig.12) which prevents the knob from slipping along the keypad and allows uniform circular depressing of the keys. The hole for installation of the knob is the same where fiber optic switch can be installed.

Therefore, the present invention describes an arrangement which is significantly different from that described by Martovitz and which is not obvious.

#10, page 9.

As per Claim 15, Narodny does not teach Y-box, main fiber optic cable and peripheral fiber optic cable. Also, Claim 15 is referred to Claim 14 which teaches third keypad with the joystick which has not been described by prior art and Narodny.

#11, page 9.

Thomas teaches joystick arrangement which is designed to operate with two hands. One hand is supposed to grip the handle 17 with the fire-button, while the knob 15 is activated with another hand. This design is principally different from that described in the present invention. The present invention teaches joystick which is operated by one hand, the fire-button is associated with the knob, but not with the body of the joystick as is described by Thomas.

#12, page 9

The elastic part (32) in Langewis' patent is an elastic band (see column 3, line 66 and Fig. 1) which serves for attaching the actuator (20) to the keyboard (21). The actuator is firmly oriented against keys (25) using forward and rear bars 27,28.

Therefore, this design is not relevant to the present invention.